#12
amB
3/5/02

RAW SEQUENCE LISTING DATE: 03/05/2002
PATENT APPLICATION: US/09/654,462 TIME: 13:46:06

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\03052002\I654462.raw

<110> APPLICANT: Jessell, Thomas M.
Briscoe, James
Rubenstein, John L.R.
Sander, Maike
<120> TITLE OF INVENTION: GENETIC DEMONSTRATION OF REQUIREMENT FOR NKX6.1 AND NKX2.2 IN VENTRAL
NEURAON GENERATION
<130> FILE REFERENCE: 0575-62166
<140> CURRENT APPLICATION NUMBER: 09/654,462
<141> CURRENT FILING DATE: 2000-09-01
<160> NUMBER OF SEQ ID NOS: 4
<170> SOFTWARE: PatentIn version 3.1
<210> SEQ ID NO: 1
<211> LENGTH: 367
<212> TYPE: PRT
<213> ORGANISM: Human
<400> SEQUENCE: 1

```
Met Leu Ala Val Gly Ala Met Glu Gly Thr Arg Gln Ser Ala Phe Leu
1               5                  10                  15
Leu Ser Ser Pro Pro Leu Ala Ala Leu His Ser Met Ala Glu Met Lys
            20                  25                  30
Thr Pro Leu Tyr Pro Ala Ala Tyr Pro Pro Leu Pro Ala Gly Pro Pro
        35                  40                  45
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Pro Ser Pro Pro Leu
    50                  55                  60
Gly Thr His Asn Pro Gly Gly Leu Lys Pro Pro Ala Thr Gly Gly Leu
65                  70                  75                  80
Ser Ser Leu Gly Ser Pro Pro Gln Gln Leu Ser Ala Ala Thr Pro His
                85                  90                  95
Gly Ile Asn Asn Ile Leu Ser Arg Pro Ser Met Pro Val Ala Ser Gly
            100                 105                 110
Ala Ala Leu Pro Ser Ala Ser Pro Ser Gly Ser Ser Ser Ser Ser Ser
        115                 120                 125
Ser Ser Ala Ser Ala Ser Ser Ala Ser Ala Ala Ala Ala Ala Ala Ala
    130                 135                 140
Ala Ala Ala Ala Ala Ala Ser Ser Pro Ala Gly Leu Leu Ala Gly Leu
145                 150                 155                 160
Pro Arg Phe Ser Ser Leu Ser Pro Pro Pro Pro Pro Pro Gly Leu Tyr
                165                 170                 175
Phe Ser Pro Ser Ala Ala Ala Val Ala Ala Val Gly Arg Tyr Pro Lys
            180                 185                 190
Pro Leu Ala Glu Leu Pro Gly Arg Thr Pro Ile Phe Trp Pro Gly Val
        195                 200                 205
Met Gln Ser Pro Pro Trp Arg Asp Ala Arg Leu Ala Cys Thr Pro His
```

RAW SEQUENCE LISTING DATE: 03/05/2002
PATENT APPLICATION: US/09/654,462 TIME: 13:46:06

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\03052002\I654462.raw

```
80      210                 215                 220
83 Gln Gly Ser Ile Leu Leu Asp Lys Asp Gly Lys Arg Lys His Thr Arg
84 225                 230                 235                 240
87 Pro Thr Phe Ser Gly Gln Gln Ile Phe Ala Leu Glu Lys Thr Phe Glu
88                 245                 250                 255
91 Gln Thr Lys Tyr Leu Ala Gly Pro Glu Arg Ala Arg Leu Ala Tyr Ser
92             260                 265                 270
95 Leu Gly Met Thr Glu Ser Gln Val Lys Val Trp Phe Gln Asn Arg Arg
96         275                 280                 285
99 Thr Lys Trp Arg Lys Lys His Ala Ala Glu Met Ala Thr Ala Lys Lys
100     290                 295                 300
103 Lys Gln Asp Ser Glu Thr Glu Arg Leu Lys Gly Ala Ser Glu Asn Glu
104 305                 310                 315                 320
107 Glu Glu Asp Asp Asp Tyr Asn Lys Pro Leu Asp Pro Asn Ser Asp Asp
108                 325                 330                 335
111 Glu Lys Ile Thr Gln Leu Leu Lys Lys His Lys Ser Ser Ser Gly Gly
112             340                 345                 350
115 Gly Gly Gly Leu Leu Leu His Ala Ser Glu Pro Glu Ser Ser Ser
116         355                 360                 365
119 <210> SEQ ID NO: 2
120 <211> LENGTH: 682
121 <212> TYPE: DNA
122 <213> ORGANISM: Human
124 <400> SEQUENCE: 2
125 cgtgggatgt tagcggtggg ggcaatggag ggcacccggc agagcgcatt cctgctcagc     60
127 agccctcccc tggccgccct gcacagcatg gccgagatga agaccccgct gtaccctgcc    120
129 gcgtatcccc cgctgcctgc cggccccccc tcctcctcgt cctcgtcgtc gtcctcctcg    180
131 tcgccctccc cgcctctggg cacccacaac ccaggcggcc tgaagccccc ggccacgggg    240
133 gggctctcat ccctcggcag ccccccgcag cagctctcgg ccgccacccc acacggcatc    300
135 aacaatatcc tgagccggcc ctccatgccc gtggcctcgg gggccgccct gccctccgcc    360
137 tcgccctccg gttcctcctc ctcctcttcc tcgtccgcct ctgcctcctc cgcctctgcc    420
139 gccgccgcgg ctgctgccgc ggccgcagcc gccgcctcat ccccggcggg gctgctggcc    480
141 ggactgccac gctttagcag cctgagcccg ccgccgccgc cgcccgggct ctacttcagc    540
143 cccagcgccg cggccgtggc cgccgtgggc cggtacccca agccgctggc tgagctgcct    600
145 ggccggacgc ccatcttctg gcccggagtg atgcagagcc cgccctggag ggacgcacgc    660
147 ctggcctgta cccctcgtga gt                                            682
150 <210> SEQ ID NO: 3
151 <211> LENGTH: 185
152 <212> TYPE: DNA
153 <213> ORGANISM: Human
155 <400> SEQUENCE: 3
156 tcacagatca aggatccatt ttgttggaca aagacgggaa gagaaaacac acgagaccca     60
158 ctttttccgg acagcagatc ttcgccctgg agaagacttt cgaacaaaca aaatacttgg    120
160 cggggcccga gagggctcgt ttggcctatt cgttggggat gacagagagt caggtcaagg    180
162 tgagt                                                              185
165 <210> SEQ ID NO: 4
166 <211> LENGTH: 273
167 <212> TYPE: DNA
168 <213> ORGANISM: Human
```

RAW SEQUENCE LISTING DATE: 03/05/2002
PATENT APPLICATION: US/09/654,462 TIME: 13:46:06

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\03052002\I654462.raw

170 <400> SEQUENCE: 4
171 cctcaggtct ggttccagaa ccgccggacc aagtggagga agaagcacgc tgccgagatg 60
173 gccacggcca agaagaagca ggactcggag acagagcgcc tcaagggggc ctcggagaac 120
175 gaggaagagg acgacgacta caataagcct ctggatccca actcggacga cgagaaaatc 180
177 acgcagctgt tgaagaagca caagtccagc agcggcgggg gcggcggcct cctactgcac 240
179 gcgtccgagc cggagagctc atcctgaacg ccg 273

VERIFICATION SUMMARY DATE: 03/05/2002
PATENT APPLICATION: US/09/654,462 TIME: 13:46:07

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\03052002\I654462.raw